

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 2, 2016/2017 SESSION

**DBM5028 – BUSINESS FINANCE**

(For Diploma Students Only)

28 FEBRUARY 2017

2:30 PM – 4:30 PM

(2 Hours)

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### INSTRUCTIONS TO STUDENT

1. This question paper consists of 11 pages with 2 sections.
2. For Section A, shade your answers on the OMR sheet provided.
3. For Section B, write your answers in the answer booklet provided.
4. The formulas are given in the appendixes.

**SECTION A: MULTIPLE CHOICE QUESTIONS (40 marks)**

*Instruction: Please shade your answers on the OMR sheet provided.*

1. Vanessa has just joined a new company last week. Her superior told her that their department works with financial assets such as stocks and bonds. Her job scope includes determining the price of a financial asset and analysing the potential risks and rewards when their clients invest in a particular financial asset. Vanessa's job falls into which one of the following areas of finance?
  - A. Corporate finance.
  - B. Finance institutions.
  - C. International finance.
  - D. Investments.
2. Which one of the following is a capital budgeting decision?
  - A. Determining the optimal inventory level.
  - B. Determining which customer will be granted credit.
  - C. Determining which equipment to purchase for the firm's production.
  - D. Determining which type of loan to obtain in order to finance the company's inventory.
3. Which one of the following is a capital structure decision?
  - A. Determining when suppliers should be paid.
  - B. Establishing the preferred debt-equity level.
  - C. Selecting new machinery to purchase.
  - D. Setting the terms of sale for credit sales.
4. Capital budgeting includes the evaluation of \_\_\_\_\_.
  - A. risk and timing of future cash flows
  - B. size of future cash flows
  - C. size and timing of future cash flows
  - D. size, timing and risk of future cash flows
5. Which one of the following statements concerning a sole proprietorship is **CORRECT**?
  - A. A sole proprietorship is designed to protect the personal assets of the owner.
  - B. A sole proprietorship has unlimited life.
  - C. The owner of a sole proprietorship is personally responsible for all of the company's debts.
  - D. The profits of a sole proprietorship are subject to double taxation.

**Continued...**

6. A corporation in which you are a shareholder has just gone bankrupt. Its liabilities are far in excess of its assets. You will be called on to pay \_\_\_\_\_.
- A. a proportional share of bondholder claims based on the number of common shares that you own
  - B. a proportional share of all creditor claims based on the number of common shares that you own
  - C. an amount that could, at most, equal what you originally paid for the shares of common stock in the corporation
  - D. nothing
7. Which one of the following is an advantage of being a limited partner?
- A. Control over the daily operations of the firm.
  - B. Losses limited to capital invested.
  - C. Non-taxable share of any profits.
  - D. Unlimited profits without risk of incurring a loss.
8. "Shareholder wealth" in a firm is represented by \_\_\_\_\_.
- A. the market price per share of the firm's common stock
  - B. the market value of the firm's assets less the book value of its liabilities
  - C. the number of people employed in the firm
  - D. the total salary paid to its employees
9. Which form of capital is expected to remain permanently invested in the firm?
- A. Debt capital.
  - B. Equity capital.
  - C. Human capital.
  - D. Political capital.
10. Which one of the following are effective means of aligning management goals with shareholder interests?
- I. Employee stock options.
  - II. Job promotion tied to performance goals.
  - III. Management bonuses tied to performance goals.
  - IV. Threat of a takeover.
- A. I and II only.
  - B. II and III only.
  - C. I, II and III only.
  - D. I, II, III and IV.

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Continued...

11. Which one of the following is the tax rate that applies to the next ringgit of taxable income that a firm earns?
- A. Absolute tax rate.
  - B. Average tax rate.
  - C. Marginal tax rate.
  - D. Variable tax rate.
12. \_\_\_\_\_ is included in net working capital.
- A. Accounts receivable
  - B. Building
  - C. Dividend
  - D. Five-year loan
13. Which one of the following statements is **CORRECT**?
- A. An increase in cash increases the liquidity of a firm.
  - B. Land is generally considered a highly liquid asset.
  - C. Net working capital is the residual value of a firm.
  - D. Net working capital must be a positive value.
14. Which one of the following statements related to the income statement is **CORRECT**?
- A. Depreciation has no effect on taxes.
  - B. Interest paid is a noncash item.
  - C. Net income is paid out as dividends or added to retained earnings.
  - D. Taxable income plus interest and depreciation equals earnings before interest and taxes.
15. Which one of the following is included as equity?
- A. Bonds payable.
  - B. Depreciation.
  - C. Retained earnings.
  - D. Working capital.
16. Depreciation and amortisation expenses are \_\_\_\_\_.
- A. after-tax expenses that reduce a firm's cash flows
  - B. noncash expenses charged against revenue that do not affect cash flow
  - C. part of current assets on the balance sheet
  - D. part of net working capital

**Continued...**

17. Kwang Xian is trying to determine the amount of cash she will receive should she sell all of her firm's assets. Which asset value should Kwang Xian use to estimate her potential cash inflow?
- Book value.
  - Depreciated cost basis.
  - Historical cost.
  - Market value.
18. Windsor Diner's reported total assets of RM63,400 and net working capital of RM14,870. Its balance sheet also showed owner's equity of RM33,300 and net fixed assets of RM45,770. What is the value of the long-term debt?
- RM27,340
  - RM35,540
  - RM36,060
  - RM44,970
19. Referring to the tax rate table below, calculate the firm's tax liability if Syarikat RRC earns taxable income of RM400,000.

Taxable income		Tax Rate
RM	RM	
0	50,000	15%
50,001	75,000	25%
75,001	100,000	34%
100,001	335,000	39%
335,001	10,000,000	34%

- RM136,000
  - RM139,250
  - RM156,000
  - RM190,400
20. Star Galaxy's financial statements showed net sales of RM412,000, costs of RM247,200 and depreciation expense of RM39,400. During the year, the firm paid out dividends of RM20,000 and interest of RM10,000. What is the amount of the firm's operating cash flow if the tax rate is 28 percent?
- RM108,088
  - RM132,488
  - RM136,456
  - RM158,056

Continued...

21. Siva is investing RM2,000 today. Which one of the following will increase the future value of that amount?
- A. Shortening the investment time period.
  - B. Paying interest only on the principal amount.
  - C. Paying simple interest rather than compound interest.
  - D. Increasing the interest rate.
22. Six years from now, you will be inheriting RM100,000. What is this inheritance worth to you today if you can earn 6.5 percent interest, compounded annually?
- A. RM68,533.41
  - B. RM70,008.21
  - C. RM72,419.05
  - D. RM74,003.15
23. Adam invested RM6,000 today in an investment that pays 5.5 percent annual interest. Which one of the following statements is **CORRECT**, assuming all interest is reinvested?
- A. Adam will earn the same amount of interest each year.
  - B. Adam could have the same future value and invest less than RM6,000 initially if he could earn more than 5.5 percent interest.
  - C. Adam will earn an increasing amount of interest each and every year even if he should decide to withdraw the interest annually rather than reinvesting the interest.
  - D. Adam will be earning simple interest.
24. Beng Ling is investing for RM888 today at 8 percent interest so he could have RM1,000 later. The RM1,000 is referred to as the \_\_\_\_\_.
- A. future value
  - B. true value
  - C. present value
  - D. complex value
25. You just won RM25,000 and deposited your winning into an account that pays 6.2 percent interest, compounded annually. How long will you have to wait until your winning is worth RM50,000?
- A. 11.52 years.
  - B. 12.00 years.
  - C. 12.29 years.
  - D. 12.67 years.

**Continued...**

26. Siti will be receiving a RM7,400 bonus one year from now. The process of determining how much that bonus is worth today is called \_\_\_\_\_.
- A. aggregating
  - B. discounting
  - C. simplifying
  - D. compounding
27. Sam wants to invest RM9,000 for 9 years. Which one of the following rates will provide him with the largest future value?
- A. 5 percent simple interest.
  - B. 5 percent interest, compounded annually.
  - C. 6 percent interest, compounded annually.
  - D. 7 percent interest, compounded annually.
28. Which one of the following is a **CORRECT** statement, all else held constant?
- A. The present value is inversely related to the future value.
  - B. The future value is inversely related to the period of time.
  - C. The period of time is directly related to the interest rate.
  - D. The future value is directly related to the interest rate.
29. The rate used to compute the future value is called as the \_\_\_\_\_.
- A. prime rate
  - B. current rate
  - C. simple rate
  - D. interest rate
30. You are investing RM5,500 today and to be received in 5.5 years. The discount rate is 5.5 percent. Which one of the following is the **CORRECT** formula?
- A.  $PV = RM5,500 (1 + 5)^{5.5}$
  - B.  $PV = RM5,500 / [(1 + 0.055)^5]^{5.5}$
  - C.  $FV = RM5,500 (1 + 0.055)^{5.5}$
  - D.  $FV = RM5,500 (1 + 0.55)^5$
31. Anna pays 1.5 percent interest monthly on her credit card account. When the interest rate on that debt is expressed as if it were compounded only annually, the rate would be referred to as the \_\_\_\_\_.
- A. annual percentage rate
  - B. compounded rate
  - C. stated rate
  - D. effective annual rate

Continued...

32. Which one of the following will decrease the present value of an annuity?
- A. Increase in the annuity's future value.
  - B. Increase in the payment amount.
  - C. Decrease in the annuity payment.
  - D. Decrease in the discount rate.
33. Which one of the following qualifies as an annuity?
- A. Housing loan payment.
  - B. Weekly grocery bill.
  - C. Clothing purchases.
  - D. Car repairs.
34. Which one of the following features distinguishes an ordinary annuity from an annuity due?
- A. Annuity interest rate.
  - B. Timing of the annuity payments.
  - C. Annuity interest rate.
  - D. Frequency of the payments.
35. Which one of the following has the highest effective annual rate?
- A. 8 percent compounded annually.
  - B. 8 percent compounded semi-annually.
  - C. 8 percent compounded quarterly.
  - D. 8 percent compounded monthly.
36. Sarah borrowed RM6,000 from her bank 2 years ago. The loan term is 4 years. Each year, she must repay RM1,500 plus the annual interest to the bank. Which type of loan does she have?
- A. Interest-only loan.
  - B. Pure discount loan.
  - C. Complex loan.
  - D. Amortised loan.
37. Sam Hui borrowed RM5,555 today. The loan agreement requires him to repay RM5,775 in one lump sum payment one year from now. This type of loan is referred to as a/an \_\_\_\_\_.
- A. interest-only loan
  - B. pure discount loan
  - C. quoted rate loan
  - D. amortised loan

**Continued...**



38. When comparing savings accounts, you should select the account that has the \_\_\_\_\_.
- A. highest effective annual rate
  - B. highest annual percentage rate
  - C. highest stated rate
  - D. lowest effective annual rate
39. The Hemsworth Brothers recently established a trust fund that will provide annual scholarships of RM12,000 forever. These annual scholarships can **BEST** be described by which one of the following terms?
- A. Ordinary annuity.
  - B. Annuity due.
  - C. Perpetuity.
  - D. Amortised payment.
40. A credit card has a stated interest rate of 13.9 percent. How much is the annual percentage rate (APR) if interest is compounded monthly?
- A. 13.09 percent.
  - B. 13.46 percent.
  - C. 13.90 percent.
  - D. 14.82 percent.

[TOTAL 40 MARKS]

**SECTION B: STRUCTURED QUESTIONS (60 marks)**

*Instruction: Please write all your answers in the answer booklet provided.*

**QUESTION 1**

- (a) Currently, Berjaya Group Corporation is issuing twenty years maturity bonds with quarterly coupon payments and 6 percent coupon rate. The current market rate is 7.5 percent for similar bond. As a financial analyst, you are required to calculate:
- i. Bond price.  
(5.5 marks)
  - ii. Current yield of the bond.  
(2 marks)
  - iii. If the company manage to sell 1 million bonds, how much money does the company able to raise?  
(2 marks)

**Continued...**

- (b) SME Corporation wants to issue fifteen years zero coupon bond with yield to maturity is 6.5 percent and par value of RM 1,000.
- i. What purchase price should SME Corporation charge?  
(3 marks)
- ii. If the company wants to raise RM 3.5 million capital, how many bonds should the company sell?  
(2.5 marks)

[TOTAL 15 MARKS]

**QUESTION 2**

- (a) Axiata Group Berhad is planning to pay the following dividends: RM4.50, RM6.50, and RM8 for three years respectively. Subsequently, the company is expecting to hold annual constant dividend at 3 percent growth rate.
- i. If the required return for similar stock is 8 percent, what is the current price of stock?  
(5.5 marks)
- ii. What is the value of the stock in next tenth years?  
(2 marks)
- (b) MK Land Holding Berhad just paid annual dividend of RM0.80. Previously, the company has increased dividend by 4 percent annually and expected to remain doing so. The required rate of return is 10 percent, what will the stock be worth in three years from now?  
(4 marks)
- (c) Petra Energy Berhad issued preferred stocks and announced constant dividend of RM4.50 per share. If the required return is 7 percent, how much you willing to pay for one share? If the company is selling the stock at RM75 per share, are you willing to buy? Why?  
(3.5 marks)

[TOTAL 15 MARKS]

**Continued...**

**QUESTION 3**

- (a) YBC Company is considering of adding a new product line that will require an investment of RM100,000. Managers estimated that this investment will have a 5-year life and generate net cash inflows of RM40,000 for the first year, RM30,000 for the second year, and RM25,000 each year thereafter for three years. Compute the payback period.

(3 marks)

- (b) Amira is considering a project with cash inflows of RM120, RM230, RM400 and RM600 over the next four years, respectively. The relevant discount rate is 9 percent. What is the net present value of this project if the initial cost is RM800?

(4 marks)

- (c) The managers of Masom Company are considering for equipment investment from two companies; Amber Corporation and Brane Corporation. The data regarding investments offered by both companies are as below:

	<b>Amber Corporation</b>	<b>Brane Corporation</b>
Equipment cost	RM1,000,000	RM1,200,000
Useful life and depreciation	Five years (depreciation of RM200,000 per year)	Six years (depreciation of RM180,000 per year)
Estimated annual operating income	RM75,000	RM85,000

Which company offers higher average accounting return (AAR)?

(8 marks)

**[TOTAL 15 MARKS]****QUESTION 4**

- (a) The following information are provided by Mike Delfino's Sdn. Bhd for the year of 2015.

<b>Items</b>	<b>Beginning (RM)</b>	<b>Ending (RM)</b>
Inventory	10,407	10,822
Account receivable	6,840	7,301
Accounts payable	7,221	6,948

The company's net sales and cost of goods sold are RM146,400 and RM82,500 respectively.

If all sales are on credit, calculate:

- i. Accounts receivable period.

(2.5 marks)

**Continued...**

ii. Accounts payable period.

(2.5 marks)

iii. Cash cycle.

(3.5 marks)

- (b) Paul Walker's company sells 4,300 carpets a year with the average price per carpet of RM1,490. The carrying cost per unit is RM21.63. The company orders 500 carpets at a time from supplier and has a fixed order cost of RM69 per order. The carpets are sold out before they are restocked. What is the economic order quantity?

(3 marks)

- (c) Orson Hodge Sdn. Bhd. buys plants for RM2 each and resells them for RM8.95 each. The firm sells 3,500 plants per year. Generally, the firm orders 400 plants at a time from supplier and has a fixed cost per order of RM28. The carrying cost per unit is RM1.16. To avoid newer plants mixing with older plants, the inventory is totally sold out before it is restocked. What is the total annual carrying cost and total restocking cost of the firm?

(3.5 marks)

**[TOTAL 15 MARKS]**

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## Appendixes

### I. The cash flow identity

Cash flow from assets = Cash flow to creditors (bondholders)  
+ Cash flow to stockholders (owners)

### II. Cash flow from assets

Cash flow from assets = Operating cash flow  
– Net capital spending  
– Change in net working capital (NWC)

where

Operating cash flow = Earnings before interest and taxes (EBIT)  
+ Depreciation – Taxes

Net capital spending = Ending net fixed assets – Beginning net fixed assets  
+ Depreciation

Change in NWC = Ending NWC – Beginning NWC

### III. Cash flow to creditors (bondholders)

Cash flow to creditors = Interest paid – Net new borrowing

### IV. Cash flow to stockholders (owners)

Cash flow to stockholders = Dividends paid – Net new equity raised

### I. Symbols

PV = Present value, what future cash flows are worth today

FV<sub>t</sub> = Future value, what cash flows are worth in the future

r = Interest rate, rate of return, or discount rate per period typically , but not always, one year

t = Number of periods typically , but not always, the number of years

C = Cash amount

### II. Future value of C invested at r percent per period for t periods

$FV_t = C \times (1 + r)^t$

The term  $(1 + r)^t$  is called the *future value factor*.

### III. Present value of C to be received in t periods at r percent per period

$PV = C / (1 + r)^t$

The term  $1 / (1 + r)^t$  is called the *present value factor*.

### IV. The basic present value equation giving the relationship between present and future value is

$PV = FV_t / (1 + r)^t$

### I. Symbols

PV = Present value, what future cash flows are worth today

FV<sub>t</sub> = Future value, what cash flows are worth in the future at time t

r = Interest rate, rate of return, or discount rate per period typically , but not always, one year

t = Number of periods typically , but not always, the number of years

C = Cash amount

### II. Future value of C invested per period for t periods at r percent per period

$FV_t = C \times [(1 + r)^t - 1] / r$

A series of identical cash flows is called an annuity, and the term  $[(1 + r)^t - 1] / r$  is called the *annuity future value factor*.

### III. Present value of C per period for t periods at r percent per period

$PV = C \times [1 - 1 / (1 + r)^t] / r$

The term  $[1 - 1 / (1 + r)^t] / r$  is called the *annuity present value factor*.

### IV. Present value of a perpetuity of C per period

$PV = C / r$

A perpetuity has the same cash flow every year forever.

**I. Finding the value of a bond**

$$\text{Bond value} = C \times [1 - 1/(1 + r)^t]/r + F/(1 + r)^t$$

where

$C$  = Coupon paid each period

$r$  = Rate per period

$t$  = Number of periods

$F$  = Bonds face value

**II. Finding the yield on a bond**

Given a bond value, coupon, time to maturity, and face value, it is possible to find the implicit discount rate, or yield to maturity, by trial and error only. To do this, try different discount rates in the formula above until the calculated bond value equals the given bond value. Remember that increasing the rate *decreases* the bond value.

**I. The general case**

In general, the price today of a share of stock,  $P_0$ , is the present value of all of its future dividends,  $D_1, D_2, D_3, \dots$ :

$$P_0 = \frac{D_1}{(1 + R)^1} + \frac{D_2}{(1 + R)^2} + \frac{D_3}{(1 + R)^3} + \dots$$

where  $R$  is the required return.

**II. Constant growth case**

If the dividend is constant and equal to  $D$ , then the price can be written as:

$$P_0 = \frac{D}{R}$$

If the dividend grows at a steady rate,  $g$ , then the price can be written as:

$$P_0 = \frac{D_1}{R - g}$$

This result is called the *dividend growth model*.

**III. Nonconstant Growth**

If the dividend grows steadily after  $t$  periods, then the price can be written as:

$$P_0 = \frac{D_1}{(1 + R)^1} + \frac{D_2}{(1 + R)^2} + \dots + \frac{D_t}{(1 + R)^t} + \frac{P_t}{(1 + R)^t}$$

where

$$P_t = \frac{D_t \times (1 + g)}{(R - g)}$$

**IV. Valuation Using Multiples**

For stocks that don't pay dividends (or have erratic dividend growth rates), we can value them using the PE ratio and/or the price-sales ratio:

$$P_1 = \text{Benchmark PE ratio} \times \text{EPS}_1$$

$$P_1 = \text{Benchmark price-sales ratio} \times \text{Sales per share}_1$$

**V. The required return,  $R$ , can be written as the sum of two things:**

$$R = D_1/P_0 + g$$

where  $D_1/P_0$  is the *dividend yield* and  $g$  is the *capital gains yield* (which is the same thing as the growth rate in dividends for the steady growth case).